

may potentially be made. The improvement need not exist, be planned, nor even authorized; it is enough that potentially they could be made. What is a "reasonable" improvement is always a matter of degree; there must be a balance between cost and need at a time when the improvement would be (or would have been) useful. Thus, if an improvement were "reasonable" at a time of past use, the water was therefore navigable in law from that time forward. The changes in engineering practices or the coming of new industries with varying classes of freight may affect the type of the improvement; those which may be entirely reasonable in a thickly populated, highly developed industrial region may have been entirely too costly for the same region in the days of the pioneers. The determination of reasonable improvement is often similar to the cost analyses presently made in Corps of Engineers studies.

§ 329.9 Time at which commerce exists or determination is made.

(a) *Past use.* A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions. Nor does absence of use because of changed economic conditions affect the legal character of the waterbody. Once having attained the character of "navigable in law," the Federal authority remains in existence, and cannot be abandoned by administrative officers or court action. Nor is mere inattention or ambiguous action by Congress an abandonment of Federal control. However, express statutory declarations by Congress that described portions of a waterbody are non-navigable, or have been abandoned, are binding upon the Department of the Army. Each statute must be carefully examined, since Congress often reserves the power to amend the Act, or assigns special duties of supervision and control to the Secretary of the Army or Chief of Engineers.

(b) *Future or potential use.* Navigability may also be found in a waterbody's susceptibility for use in its ordinary condition or by reasonable improvement to transport interstate commerce. This may be either in its natural or improved condition, and may thus be existent although there has been no actual use to date. Non-use in the past therefore does not prevent recognition of the potential for future use.

§ 329.10 Existence of obstructions.

A stream may be navigable despite the existence of falls, rapids, sand bars, bridges, portages, shifting currents, or similar obstructions. Thus, a waterway in its original condition might have had substantial obstructions which were overcome by frontier boats and/or portages, and nevertheless be a "channel" of commerce, even though boats had to be removed from the water in some stretches, or logs be brought around an obstruction by means of artificial chutes. However, the question is ultimately a matter of degree, and it must be recognized that there is some point beyond which navigability could not be established.

§ 329.11 Geographic and jurisdictional limits of rivers and lakes.

(a) *Jurisdiction over entire bed.* Federal regulatory jurisdiction, and powers of improvement for navigation, extend laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high water mark. Jurisdiction thus extends to the edge (as determined above) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation or other barriers. Marshlands and similar areas are thus considered navigable in law, but only so far as the area is subject to inundation by the ordinary high waters.

(1) The "ordinary high water mark" on non-tidal rivers is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the

presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

(2) Ownership of a river or lake bed or of the lands between high and low water marks will vary according to state law; however, private ownership of the underlying lands has no bearing on the existence or extent of the dominant Federal jurisdiction over a navigable waterbody.

(b) *Upper limit of navigability.* The character of a river will, at some point along its length, change from navigable to non-navigable. Very often that point will be at a major fall or rapids, or other place where there is a marked decrease in the navigable capacity of the river. The upper limit will therefore often be the same point traditionally recognized as the head of navigation, but may, under some of the tests described above, be at some point yet farther upstream.

§ 329.12 Geographic and jurisdictional limits of oceanic and tidal waters.

(a) *Ocean and coastal waters.* The navigable waters of the United States over which Corps of Engineers regulatory jurisdiction extends include all ocean and coastal waters within a zone three geographic (nautical) miles seaward from the baseline (The Territorial Seas). Wider zones are recognized for special regulatory powers exercised over the outer continental shelf. (See 33 CFR 322.3(b)).

(1) *Baseline defined.* Generally, where the shore directly contacts the open sea, the line on the shore reached by the ordinary low tides comprises the baseline from which the distance of three geographic miles is measured. The baseline has significance for both domestic and international law and is subject to precise definitions. Special problems arise when offshore rocks, islands, or other bodies exist, and the baseline may have to be drawn seaward of such bodies.

(2) *Shoreward limit of jurisdiction.* Regulatory jurisdiction in coastal areas extends to the line on the shore reached by the plane of the mean (average) high water. Where precise determination of the actual location of the line becomes necessary, it must be es-

tablished by survey with reference to the available tidal datum, preferably averaged over a period of 18.6 years. Less precise methods, such as observation of the “apparent shoreline” which is determined by reference to physical markings, lines of vegetation, or changes in type of vegetation, may be used only where an estimate is needed of the line reached by the mean high water.

(b) *Bays and estuaries.* Regulatory jurisdiction extends to the entire surface and bed of all waterbodies subject to tidal action. Jurisdiction thus extends to the edge (as determined by paragraph (a)(2) of this section) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation, or other barriers. Marshlands and similar areas are thus considered “navigable in law,” but only so far as the area is subject to inundation by the mean high waters. The relevant test is therefore the presence of the mean high tidal waters, and not the general test described above, which generally applies to inland rivers and lakes.

§ 329.13 Geographic limits: Shifting boundaries.

Permanent changes of the shoreline configuration result in similar alterations of the boundaries of the navigable waters of the United States. Thus, gradual changes which are due to natural causes and are perceptible only over some period of time constitute changes in the bed of a waterbody which also change the shoreline boundaries of the navigable waters of the United States. However, an area will remain “navigable in law,” even though no longer covered with water, whenever the change has occurred suddenly, or was caused by artificial forces intended to produce that change. For example, shifting sand bars within a river or estuary remain part of the navigable water of the United States, regardless that they may be dry at a particular point in time.

§ 329.14 Determination of navigability.

(a) *Effect on determinations.* Although conclusive determinations of navigability can be made only by federal Courts, those made by federal agencies